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TRANSMITTAL  
FORM

(to be used for all correspondence after initial filing)

Application Number

10/666,678

Filing Date

September 19, 2003

First Named Inventor

Charles L. Gray, Jr.

Art Unit

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Examiner Name

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Total Number of Pages in This Submission

6

Attorney Docket Number

EPA 679-03

FEB

8 2004

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## ENCLOSURES (Check all that apply)

|  |   |   |
|--|---|---|
| <input checked="" type="checkbox"/> Fee Transmittal Form                     | <input type="checkbox"/> Drawing(s)                                       | <input type="checkbox"/> After Allowance communication to Technology Center (TC)        |
| <input type="checkbox"/> Fee Attached  | <input type="checkbox"/> Licensing-related Papers                         | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences     |
| <input checked="" type="checkbox"/> Amendment/Reply (Prelim./Non-f fee)      | <input type="checkbox"/> Petition   | <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final   | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Proprietary Information  |
| <input type="checkbox"/> Affidavits/declaration(s)                           | <input type="checkbox"/> Power of Attorney, Revocation                    | <input type="checkbox"/> Status Letter  |
| <input type="checkbox"/> Extension of Time Request                           | <input type="checkbox"/> Change of Correspondence Address                 | <input type="checkbox"/> Other Enclosure(s) (please identify below):                    |
| <input type="checkbox"/> Express Abandonment Request                         | <input type="checkbox"/> Terminal Disclaimer                              |   |
| <input type="checkbox"/> Information Disclosure Statement                    | <input type="checkbox"/> Request for Refund                               |   |
| <input type="checkbox"/> Certified Copy of Priority Document(s)              | <input type="checkbox"/> CD, Number of CD(s) _____                        |   |
| <input type="checkbox"/> Response to Missing Parts/ Incomplete Application   |   |   |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 |   |   |
| Remarks  |   |   |

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

|                         |               |
|-------------------------|---------------|
| Firm or Individual name | David H. Read |
| Signature               | David Read    |
| Date                    | Feb. 4, 2004  |

## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

|                       |               |
|-----------------------|---------------|
| Typed or printed name | David H. Read |
| Signature             | David Read    |
| Date                  | Feb 13 2004   |

This collection of information is (red process) an application. Confidential gathering, preparing, and submitting amount of time you require to complete your application. U.S. Patent and Trademark Office, U.S. Department of Commerce. ADDRESS. SEND TO: Commis

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OPTIONAL FORM 99 (7-90)

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## FAX TRANSMITTAL

# of pages &gt; 6

|   |              |         |              |
|---|--------------|---------|--------------|
| To  | US PTO       | From    | David Read   |
| Dept./Agency  | USPTO        | Phone # | 734-214-4367 |
| Fax #   | 703-872-9306 | Fax #   | 734-214-4573 |
| NSN 7540-01-317-7368 5089-101 GENERAL SERVICES ADMINISTRATION |              |         |              |

to file (and by the USPTO to complete, including e. Any comments on the 1 Officer, U.S. Patent and TRADE FORMS TO THIS

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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$)

(S) 

## Complete if Known

|                      |                      |
|----------------------|----------------------|
| Application Number   | 10/666,678           |
| Filing Date          | September 19, 2003   |
| First Named Inventor | Charles L. Gray, Jr. |
| Examiner Name        |                      |
| Art Unit             |                      |
| Attorney Docket No.  | EPA 679-03           |

## METHOD OF PAYMENT (check all that apply)

Check  Credit card  Money Order  Other  None

Deposit Account:

Deposit Account Number  
Deposit Account Name

051128  
U.S. Environmental Protection Agency

The Director is authorized to: (check all that apply)

- Charge fee(s) indicated below  Credit any overpayments  
 Charge any additional fee(s) or any underpayment of fee(s)  
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

## 1. BASIC FILING FEE

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description        | Fee Paid |
|----------------------------|----------------------------|------------------------|----------|
| 1001 770                   | 2001 385                   | Utility filing fee     |          |
| 1002 340                   | 2002 170                   | Design filing fee      |          |
| 1003 530                   | 2003 265                   | Plant filing fee       |          |
| 1004 770                   | 2004 385                   | Reissue filing fee     |          |
| 1005 160                   | 2005 80                    | Provisional filing fee |          |
| SUBTOTAL (1) (\$)          |                            |                        |          |

## 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

| Total Claims       | Extra Claims | Fee from below | Fee Paid |
|--------------------|--------------|----------------|----------|
| Independent Claims | -20** =      | X              | =        |
| Multiple Dependent | -3** =       | X              | =        |
|                    |              |                |          |

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description  |
|----------------------------|----------------------------|--|
| 1202 18                    | 2202 9                     | Claims in excess of 20                                     |
| 1201 66                    | 2201 43                    | Independent claims in excess of 3                          |
| 1203 290                   | 2203 145                   | Multiple dependent claim, if not paid                      |
| 1204 86                    | 2204 43                    | ** Reissue independent claims over original patent         |
| 1205 18                    | 2205 9                     | ** Reissue claims in excess of 20 and over original patent |
| SUBTOTAL (2) (\$)          |                            |  |

\*\*or number previously paid, if greater; For Reissues, see above

## 3. ADDITIONAL FEES

| Large Entity Fee Code (\$)        | Small Entity Fee Code (\$) | Fee Description  | Fee Paid |
|-----------------------------------|----------------------------|--|----------|
| 1051 130                          | 2051 65                    | Surcharge - late filing fee or oath  |          |
| 1052 50                           | 2052 25                    | Surcharge - late provisional filing fee or cover sheet                     |          |
| 1053 130                          | 1053 130                   | Non-English specification  |          |
| 1812 2,520                        | 1812 2,520                 | For filing a request for ex parte reexamination                            |          |
| 1804 920*                         | 1804 920*                  | Requesting publication of SIR prior to Examiner action                     |          |
| 1805 1,840*                       | 1805 1,840*                | Requesting publication of SIR after Examiner action                        |          |
| 1251 110                          | 2251 55                    | Extension for reply within first month                                     |          |
| 1252 420                          | 2252 210                   | Extension for reply within second month                                    |          |
| 1253 950                          | 2253 475                   | Extension for reply within third month                                     |          |
| 1254 1,480                        | 2254 740                   | Extension for reply within fourth month                                    |          |
| 1255 2,010                        | 2255 1,005                 | Extension for reply within fifth month                                     |          |
| 1401 330                          | 2401 165                   | Notice of Appeal   |          |
| 1402 330                          | 2402 165                   | Filing a brief in support of an appeal                                     |          |
| 1403 290                          | 2403 145                   | Request for oral hearing   |          |
| 1451 1,510                        | 1451 1,510                 | Petition to Institute a public use proceeding                              |          |
| 1452 110                          | 2452 55                    | Petition to revive - unavoidable   |          |
| 1453 1,330                        | 2453 665                   | Petition to revive - unintentional   |          |
| 1501 1,330                        | 2501 665                   | Utility issue fee (or reissue)   |          |
| 1502 480                          | 2502 240                   | Design issue fee   |          |
| 1503 640                          | 2503 320                   | Plant issue fee  |          |
| 1460 130                          | 1460 130                   | Petitions to the Commissioner  |          |
| 1807 50                           | 1807 50                    | Processing fee under 37 CFR 1.17(q)  |          |
| 1808 180                          | 1808 180                   | Submission of Information Disclosure Stmt                                  |          |
| 8021 40                           | 8021 40                    | Recording each patent assignment per property (times number of properties) |          |
| 1809 770                          | 2809 385                   | Filing a submission after final rejection (37 CFR 1.129(a))                |          |
| 1810 770                          | 2810 385                   | For each additional invention to be examined (37 CFR 1.129(b))             |          |
| 1801 770                          | 2801 385                   | Request for Continued Examination (RCE)                                    |          |
| 1802 900                          | 1802 900                   | Request for expedited examination of a design application                  |          |
| Other fee (specify)               |                            |  |          |
| *Reduced by Basic Filing Fee Paid |                            | SUBTOTAL (3) (\$)  |          |

SUBTOTAL (3) (\$)

|                   |               |                                      |               |                        |
|-------------------|---------------|--------------------------------------|---------------|------------------------|
| SUBMITTED BY      |               | (Complete if applicable)             |               |                        |
| Name (Print/Type) | David H. Read | Registration No.<br>(Attorney/Agent) | 47,888        | Telephone 734-214-4367 |
| Signature         | David Read    | Date                                 | Feb. 13, 2004 |                        |

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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor : Charles L. Gray, Jr  
Application Number : 10/666,678  
Filing Date : September 19, 2003  
Invention Title : Low Emission Diesel Combustion System with Low Charge-Air Oxygen Concentration Levels and High Fuel Injection Pressures

Examiner Name :  
Art Unit :  
Attorney Docket : EPA 679-03

**PRELIMINARY AMENDMENT**

Please delete and replace the first section "CROSS REFERENCE TO RELATED APPLICATION" on the first page of the specification, with the replacement section attached hereto. A clean copy of the replacement section is presented at page 2 of this amendment. The changes made from the original section are shown in the edited format for the section at page 3 of this amendment.

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of U.S. Patent Application No. 10/214,229, filed August 8, 2002, now pending, which application, in its entirety, is incorporated herein by reference.

**CROSS REFERENCE TO RELATED APPLICATION**

This application is a continuation-in-part of U.S. Patent Application No. 10/2[41]14,229, filed August 8, 2002, now pending, which application, in its entirety, is incorporated herein by reference.